

APPLICATION FOR THE CONNECTION OF EMBEDDED GENERATION

This application form for the connection of embedded generation is for small-scale embedded generators to be installed by residential, commercial or industrial customers in the Drakenstein Municipal Area. It is applicable to all forms of embedded electricity generation, including renewable energy and co-generation.

- A separate "Application for a new or modified electricity supply service" form must also be completed, except for installations where reverse power blocking is to be installed.
- If the embedded generator is to be configured as a standby supply after islanding from the utility supply, the generator will have to be connected to the existing internal wiring of the property. In such a case, the property owner must obtain a certificate of compliance from a qualified electrician.

Submit completed form to:

Customer Support Services		
Electro-Technical Services	Jan Van Riebeeck Drive P O Box 1 Paarl 7622	Tel: (021) 807 4661 Fax: (021) 870 1912

Property name and location:

Project name:	
Erf number:	
Physical address:	
Suburb / Farm:	

Name & account number of property owner:

(Only if embedded generation is to be connected to the Drakenstein Municipality's electrical network)

First Name:		Last Name:		Title:	
Municipal account number		Contract account number:			

Meter Number to be connected with the SSEG tariff	
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Property owner contact details:

Telephone (Home):	
Telephone (Work):	
Cell no.:	
Fax:	
E-mail:	

Application type:

(Tick appropriate box)

Residential	
Commercial / Industrial	
New	
Revised application	
Upgrade existing system	
Change of property owner	
Other (specify)	

Planned construction schedule:

Project construction start date:	
Project commissioning date for embedded generation:	

Mode of embedded generation:

(Tick appropriate box)

Energy from embedded generation to be used with the consumer's electricity network and no excess energy to be exported to the Drakenstein Municipality's electrical network (reverse power blocking installed).	
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Energy from embedded generation to be used with the consumer's electricity network and excess energy to be exported to the Drakenstein Municipality's electrical network (no reverse power blocking).	
Energy from embedded generation to be used solely for exporting to Drakenstein Municipality's distribution network.	
Energy from embedded generation to be used solely for wheeling to third party through Drakenstein Municipality's distribution network.	

Small-scale embedded generation type:

(Tick appropriate box)

Photo-voltaic (PV Solar)	
Concentrated solar	
Small-scale hydro	
Landfill gas	
Biomass	
Biogas	
Wind	
Co-generation	
Other (specify)	

Type of energy conversion:

(E.g. synchronous generator, induction generator, inverter, fuel cell, etc.) Include operating characteristic

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Battery storage:

(Tick appropriate box)

Yes		No	
Capacity (Amph-hours)			

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Make & model of key generating equipment:

Item 1 (description):	
Manufacturer:	
Model:	
Number of units:	
Single / three phase	
Item 2 (description):	
Manufacturer:	
Model:	
Number of units:	
Single / three phase	

Site location:

Latitude (dd mm sss)	S			°			'			''
Longitude (dd mm sss)	E			°			'			''
For commercial/industrial only (show location and dimensions of intended installation infrastructure in relation to the existing property point of connection and buildings).										

Site land-use zoning type:

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Preliminary design ⁽¹⁾:

(To be attached to this application)

Circuit diagram and design showing major components, proposed point of common coupling, isolating and interfacing devices with Drakenstein Municipality's electrical network, protection schemes, consumer network, operating characteristics, etc.	
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System earthing arrangement:

Earthing arrangements i.e. TN-C-S	
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Total capacity of embedded generation (kVA and PF):

(Attach schedule for each unit if more than one generation unit will be installed on the property)

Total installed capacity (kVA or kW peak)	
Power factor (per unit)	

Property bulk supply circuit breaker rating:

Current Rating (Ampere)	
Number of Phases (single- or three-phase)	

(1) For guidance in this regard it is recommended that an installer/supplier be consulted.

Estimated consumption and generation levels:

(Complete the table below)

Month	Estimated imported energy for the month (kWh) (Electricity bought from utility once SSEG is installed)	Estimated exported energy for the month (kWh) (Electricity generated by SSEG and not utilised for own use)	Estimated maximum Instantaneous exported power (kVA)	Day of week that maximum power export occurs	Time of day that maximum power export occurs
January					
February					
March					
April					
May					
June					
July					
August					
September					

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October					
November					
December					
Total			N/A	N/A	N/A

Brief explanation of the reasons for the general load profile and electricity export profile as mentioned above

Electrical parameters for SSEG system:

Rated system voltage (V)	
Maximum reactive power limit (kVAR)	
Maximum peak short-circuit current (A)	

Electrical parameters for unit transformer (if applicable):

Rated voltages (primary/secondary)	
Power rating (kVA)	
Winding configuration	
Method of grounding (solid, NER, NECR)	
Impedance	

Point of coupling:

(Only where applicant is not an existing customer)

Attach a single line diagram, indicating the point of connection to the Drakenstein Municipality's electrical network.	
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Protection & control scheme details ⁽²⁾:

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Method of synchronization (auto/manual, make and type of relays, etc.)	
Method of anti-islanding (detail of scheme, type of relays, etc.)	
Method of generator control (AVR, excitation, type of relays, etc.)	
Other main protection to be applied: (O/C, E/F, over/under voltage, over/under frequency, reverse power, back-up impedance, generator transformer back-up earth fault, etc.)	

⁽²⁾ For guidance in this regard it is recommended that an installer/supplier be consulted.

Clearance from other Drakenstein Municipal Departments:

FUNCTION	DEPARTMENT	COMMENTS	NAME	SIGNATURE	DATE
Zoning/subdivision/building plans	Planning and Building Development				
Noise impact assessment and ventilation	Health				
Air pollution and air quality (fuel burning)	Health				

Note:

1. Electricity Services will require prior approval from these departments. Applications to connect to the grid will not be considered until all relevant approvals have been obtained.

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2. Photovoltaic (PV) SSEG applications will require approval from only Planning and Building Development Management if:

- a. Rooftop installations: PV panel(s) in its installed position projects more than 1.5m, measured perpendicularly, above the roof and/or projects more than 600mm above the highest point of the roof;
- b. Installations on the ground: PV panel(s) in its installed position projects more than 2.1 metres above the natural/finished ground level.

Installer details:

Name of installer:			
Accreditation / qualification:			
Professional registration:			Reg.no
Physical Address:			
Contact person:			
Telephone no:		Office:	Cell:
Email address:			

I request Drakenstein Municipality's Electricity Services Department to proceed with the review of this embedded generation interconnection application. I understand that:

- I will have to pay for both in-house and outsourced engineering studies conducted as part of this review, should these be required; and
- A quotation for such work will be provided beforehand, giving me the opportunity to cancel or modify the application should I wish to do so.

I further consent to Drakenstein Municipality providing this information to the National Transmission Company and other Distributors as required.

Application completed by:

Name:	
Surname:	

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Title:			
Physical Address:			
Telephone no:	Office:		Cell:
Email address:			

ECSA registered professional:

Name:			
Professional registration:		Reg.no	
Contact person:			
Telephone no:	Office:		Cell:
Email address:			

(Note: Sign-off by an ECSA registered professional is optional at application stage, however it is recommended that an ECSA registered professional engineer or professional technologist that is familiar with the technical details of the intended generation technology, complete this application form)

Signed (Applicant):

Signed (Property owner):

Date: _____

Date: _____



Date application received:

Application notification no:

Further information required:

(e.g. Competent person detail required in terms of OHSA, General Machinery Regulations, etc.)

YES		NO	
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Date received:

More detailed studies required:

(e.g. fault level, voltage rise, harmonics, protection, voltage stability, etc.)

YES		NO	
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Date completed:

Approved in Principle: Date

YES		NO	
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applicant informed:

Copy to Planning Section: Date

YES		NO	
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completed: